**Implementation Modules:**

1. Twitter Login

I . register ii. Followers

iii. Follow iv. Tweet

v. Re-tweet

2. Data sets

i. Job hunting ii. You tube

iii. NASA iv.BBC

3. Computing the link-anomaly score

4. Combining Anomaly Scores from Different Users

**Twitter Login**:

 Twitter has evolved from a micro blogging service into a popular social messaging platform, it has been instrumental in providing the "pulse" on news and events across the globe. In addition to its widespread acceptance among the news media and entertainment industry, Twitter has also become a popular social media marketing tool and a great way to communicate with both friends and co-workers. It is many different things to many different people. It can be used by a family to keep in touch, or a company to coordinate business, or the media to keep people informed or a writer to build up a fan base. Twitter is micro-blogging. It is social messaging. It is an event coordinator, a business tool, a news reporting service and a marketing utility.

**Follow:**

[Twitter](http://webtrends.about.com/od/twitter/u/twitter_guide.htm#s1) can be a great way to promote you, your brand or your company. Actors, writers, sports stars and others are turning to Twitter as a way to connect with fans and promote themselves to millions of people across the globe. Twitter is also a great way for bloggers to gain more traction in the [blogosphere](http://webtrends.about.com/od/glossary/g/Blogosphere_d.htm) and get noticed.

But how do you build up a Twitter following? These simple tips will help you get started.

**Follow People.** The number one way to gain followers is to follow people. Many Twitter users follow anyone that follows them, while others check to see if the profile is active before deciding to follow it. You can find interesting people to follow by doing a [Twitter search](http://webtrends.about.com/od/socialnetworking/ss/how_to_search_twitter_track_trends.htm).

**Be Active.** Don't just link your web feed to your Twitter profile. Post messages and make your Twitter page a place to connect with your readers.

**Engage People.** Ask questions. Conduct polls. Find ways to engage your followers in the discussion.

**Promote your Profile.** Add a link to your Twitter profile to your blog, website and as part of your signature in email messages and discussion forums.

**Respond to Messages.** Always pay attention to who mentions you. If you aren't following them, do so. And when you get a direct message, make sure you respond.

**Followers**:

A number of companies have sprung up offering to help people and companies grow their Twitter following the easy way by forking over a little cash. The usefulness of a large Twitter following isn't simply a number. Having 10,000 followers won't do you much good if only half of them are real people and most of them aren't interested in anything you [tweet](http://webtrends.about.com/od/glossary/g/what-is-a-tweet.htm). It may change the number of followers at the top of the screen, but it will have little effect on how many people actually follow what you say. The entire point of growing a large Twitter following is to communicate with people who are interested in your topic, your company or your brand. They want to read what you write, [retweet](http://webtrends.about.com/od/twitter/a/twitter_help_what_is_a_retweet.htm) what you tweet and check out the links you post. This is what makes a Twitter following valuable. And a Twitter following that simply ignores your tweets simply isn't worth it.

**Tweets:**

A tweet is a post or status update on [Twitter](http://webtrends.about.com/od/profiles/p/twitter-profile.htm), a micro-blogging service. Because Twitter only allows messages of 140 characters or less, "tweet" is as much a play on the size of the message as it is on the audible similarity to Twitter.

**Retweets**:

A "retweet" is a reply to a [tweet](http://webtrends.about.com/od/glossary/g/what-is-a-tweet.htm) that includes the original message or a tweet that includes a link to a news article or blog post that you find particularly interesting. Like [hash tags](http://webtrends.about.com/od/twitter/a/twitter_help_what_is_a_hashtag.htm), re-tweets are a recent community-driven phenomenon on [Twitter](http://webtrends.about.com/od/profiles/fr/Twitter-Profile.htm) with the aim of making the service better and allowing people to follow discussions easier.

**Registration:**

When you join Twitter from your phone, we collect all of your updates on the web. When you're ready to activate your web account, all you have to do is add an email address and a password to complete your profile and log in.

1. Enter your full details of the signup page.
2. Enter your **phone number** when prompted.
3. Twitter will send a **verification code** to your phone. When you get that text message, enter the code (shown below).
4. You'll then be asked to create an account by entering your **email address**, a **password**, and a **name** for your account. Your username will already be entered, since you created this when you signed up via SMS.
5. Click **Create my account** as shown below, and you're all done! Twitter will walk you through finding some friends you may know on Twitter, then will direct you to your home page

**Data Sets:**

**Job Hunting dataset:**

This data set is related to a controversial post by a famous person in Japan that “the reason students having difficulty finding jobs is, because they are stupid” and various replies to that post. The keyword used in the keyword-based methods was “Job hunting.” Figures 5a and 5b show the results of the proposed link-anomaly-based change detection and burst detection, respectively. Figures 5c and 5d show the results of the text-anomaly-based change detection and burst detection, respectively. Figures 5e and 5f show the results of the keyword-frequency-based change detection and burst detection, respectively.

**You tube dataset:**

This data set is related to the recent leakage of some confidential video by the Japan Coastal Guard officer. The keyword used in the keyword-based methods was “Senkaku.” Figures 6a and 6b show the results of link-anomaly-based change detection and burst detection, respectively. Figures 6c and 6d show the results of text-anomaly-based change detection and burst detection, respectively. Figures 6e and 6f show the results of keyword-frequency based change detection and burst detection, respectively.

**NASA dataset:**

This data set is related to the discussion among Twitter users interested in astronomy that preceded NASA’s press conference about discovery of an arsenic eating organism. The keyword used in the keyword-based models was “arsenic.” Figures 7a and 7b show the results of link anomaly- based change detection and burst detection, respectively. Figures 7c and 7d show the results of text anomaly- based change detection and burst detection, respectively. Figures 7e and 7f show the same results for the keyword-frequency-based methods.

**BBC dataset:**

This data set is related to angry reactions among Japanese Twitter users against a BBC comedy show that asked “who is the unluckiest person in the world” (the answer is a Japanese man who got hit by nuclear bombs in both Hiroshima and Nagasaki but survived).The keyword used in the keyword-based models was “British” (or “Britain”). Figures 8a and 8b show the results of link-anomaly-based change detection and burst detection, respectively. Figures 8c and 8d show the results of text-anomaly-based change detection and burstdetection, respectively. Figures 8e and 8f show the same results for the keyword-frequency-based methods.

**Computing the link-anomaly score:**

In this subsection, we describe how to compute the deviation of a user’s behaviour from the normal mentioning behavior modeled in the previous subsection; In order to compute the anomaly score of a new post ***x*** = (*t, u, k, V* ) by user *u* at time *t* containing *k* mentions to users V. The two terms in the above equation can be computed via the predictive distribution of the number of mentions , and the predictive distribution of the mentionee , respectively.

**Combining Anomaly Scores from Different Users:**

we describe how to combine the anomaly scores from different users; The anomaly score is computed for each user depending on the current post of user *u* and his/her past behaviour *T* (*t*) *u* . In order to measure the general trend of user behaviour, we propose to aggregate the anomaly scores obtained for posts ***x***1*, . . . ,* ***x****n* using a discretization of window size *τ >* 0 as follows:

